

Each eyelid was cut into sagittal slices and stained with Miller's solution to specifically illustrate the distribution of elastin fibres. Representative sliced specimens were then photographically assessed to quantify the colour density using ImageJ analysis software. All quantitative values were standardised relative to the elastin-rich aorta. Euclidean geometrical modelling principles were applied to calculate the total elastic fibre distribution in the meibomian gland acini.

Results: The morphological analysis of the meibomian glands indicated the average acini diameter to be 152.40 µm. The elastic fibres were found to be concentrated around the meibomian gland acini with a relative elastic concentration of 53.64%. There was no statistical significant difference noted in elastic fibre concentrations with respect to side and gender.

Conclusion: This study introduces a novel approach to calculating the elastic fibre concentrations within structures of the upper eyelid. The presence of a high concentration of elastic fibres around the meibomian gland acini indicates its importance in the secretory process.

0898: DETECTING FATTY INFILTRATION IN CALF MUSCLES: A CORRELATION OF CADAVERIC AND IMAGING STUDIES

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Aim: The purpose was to investigate fatty infiltration in calf musculature and to correlate with imaging studies using injury, degeneration, or denervation to calf musculature.

Methods: One hundred formalin fixed cadaveric leg specimens were randomly selected and dissected. Ten specimens were stained with Haematoxylin and Eosin and imaged with MRI. In addition to the specimens, a literature review was conducted on imaging of hereditary myopathies, Achilles tendon abnormalities, and injuries to gastrocnemius and soleus using modalities such as ultrasound, CT, and MRI.

Results: Our cadaveric study demonstrated 24% presence of fatty infiltration of gastrocnemius and soleus muscles, with the process progressing from medial to lateral. This was also found in MR imaging. Haematoxylin and Eosin staining demonstrated an intrafascicular pattern of fatty deposition. The imaging literature used MRI to find oedema and fatty degeneration of the soleus muscle in patients with Achilles tendon abnormalities. Imaging studies of hereditary myopathies found MRI useful in identifying patterns to differentiate muscle dystrophies.

Conclusion: MRI identified patterns of fatty deposition confirmed in our cadaveric study and identified injury and fatty deposition patterns in literature studies of injury and muscle myopathy.

Posters: Breast Surgery

0060: BRCA1/2 MUTATION ASSOCIATED BREAST CANCER, WIDE LOCAL EXCISION AND RADIOTHERAPY OR UNILATERAL MASTECTOMY: A SYSTEMATIC REVIEW

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Aim: BRCA1/2 mutation carriers show reduced apoptotic response to ionising radiation leading to recent debate about the safety of wide local excision and radiotherapy.

Aims: Do BRCA1/2 mutation carriers with breast cancer undergoing wide local excision and radiotherapy show increased ipsilateral and contralateral breast tumour recurrence and reduced survival compared with unilateral mastectomy?

Methods: Following detailed literature search the methodology, populations, biases and outcomes of ipsilateral breast tumour recurrence, contralateral breast tumour recurrence and survival were evaluated for 25 articles.

Results: No difference in outcomes were found between wide local excision and mastectomy. BRCA2 mutation status was predictive of contralateral breast cancer only. Radiotherapy reduces the risk of ipsilateral recurrence and confers no increase in contralateral recurrence.

Conclusion: BRCA1/2 mutation status does not preclude treatment with wide local excision and radiotherapy. Given the retrospective studies with

inherent flaws and small patient numbers further large prospective trials are required.

0104: OCCULT PRIMARY BREAST CANCER – WHAT TO DO? CASE SERIES AND REVIEW OF LITERATURE

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Aim: Occult breast cancer (OBC) with axillary node metastasis represents less than 1% of all breast cancers (incidence 0.001). Our aim was to analyse management and outcomes of occult breast cancer cases.

Methods: Retrospective case note analysis of occult breast cancers diagnosed at Diana, Princess of Wales hospital, England between 2006–2014. Data collected - presentation, Mammography (MMG), ultrasound (USS), MRI, CT, biopsy, management and follow up.

Results: Total 6 patients presented. Age-range 37–71 years. 5/6 presented with an axillary lump, 1/6 was detected in a post-mastectomy specimen. All cases were occult on MMG, USS and breast MR. 5/6 had grade III and 1/6 had grade II ductal carcinoma. Immunohistochemistry showed 1/6 triple negative; 4/6 ER+, 2/6 HER2+. Staging CT was normal for all patients. 5/6 patients underwent axillary clearance, 1/6 had sampling. 3/6 had axillary radiotherapy. 2/6 had neoadjuvant and 3/6 had adjuvant chemotherapy. 4/6 had hormones. Follow up ranged from 2 months to 7 years. 5/6 patients are in remission. 1/6 developed metastasis.

Conclusion: In the absence of randomised data, this study shows that patients have excellent outcomes when managed similar to node+, ER+ breast cancers with adjuvant chemo-radiotherapy and hormones. In the future PET scanning will play a significant role in the diagnosis of OBC.

0120: POSITIVE PREDICTIVE VALUE OF CLINICAL BREAST EXAMINATION FOR BREAST CANCER IN A SYMPTOMATIC POPULATION WITH COMPARISON FOR CLINICIAN SENIORITY

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Aim: The accuracy of clinical breast examination (CBE) for breast cancer in a screening population is well described, but less so in a symptomatic population. We aim to evaluate the positive predictive value of CBE at the one stop breast clinic, and compare this for doctors at different levels.

Methods: All new patients who had core biopsy at the one stop breast clinic 1st Jan–31st Aug 2014 (n=138). Doctors graded examination P1–P5 prior to imaging. Core performed for any lesion P3+, or U3/R3+ on imaging (except patients under 25 with fibroadenoma).

Results: Core biopsies performed by: consultants (N=38; 27%); specialty doctors (N=77; 56%); specialty registrars (N=7; 5%); and core trainees (N=16; 12%). Breast cancer or DCIS was found in 129/138 core biopsies (93%). Positive predictive values for CBE grades were: P3 94%; P4 96%; P5 100%; with no difference for clinician seniority.

Non-consultants were more likely to use the P3 grading than consultants (26% vs 18%) though this was not significant (P=0.5).

Conclusion: The high positive predictive value of a CBE grade of P4 or P5 indicates that when doctors diagnosed breast cancer on clinical breast examination they were rarely wrong. This was independent of seniority.

0185: A SYSTEMATIC REVIEW COMPARING THE FUNCTIONAL CHANGES AND COMPLICATIONS OF DIEP AND TRAM FLAPS IN PATIENTS RECEIVING BREAST RECONSTRUCTION

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Aim: Treatment for breast cancer may involve unilateral or bilateral mastectomy, with subsequent breast reconstruction surgery. Using autologous tissue flaps during reconstructive surgery is increasingly popular. The aim of this systematic review was to determine if the DIEP flap is more effective than the TRAM flap for breast reconstruction in females after a mastectomy in terms of donor site morbidity, recipient site morbidity, and functional outcome.

Methods: Studies were identified using the databases Medline and Embase and applying predefined search criteria. The limits applied were;

peer-reviewed, published between January 1980 to May 2013, human trials, English language. Study inclusion followed a review of the title, abstract, and full text by two independent researchers.

Results: Two trends were identified. 1) DIEP flap surgery reduces the risk of abdominal weakness without increasing the risk of flap complications if performed by a surgeon well trained in microsurgery; 2) TRAM flap surgery remains a good alternative due to its evolution towards muscle-sparing techniques.

Conclusion: This appears to be the first systematic review in this area of research. The evidence demonstrates that DIEP flap reduces postoperative abdominal morbidity, with no increased flap complication compared to the TRAM flap if performed by a surgeon well trained in microsurgery.

0219: SCREEN DETECTED BREAST CANCERS CAN BE SAFELY AND EFFECTIVELY MANAGED LOCALLY AS PREFERRED BY PATIENTS

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Aim: Currently screen-detected impalpable breast cancers are resected in tertiary centres, often necessitating significant journeys for patients. Our patients express a preference for local surgery.

Methods: The management of impalpable breast lesions in our three district general hospitals (DGHs) was audited to assess whether the surgery could be performed locally.

All wide local excisions for breast lesions, which required localisation from April 2010– August 2014 in the three breast units in Lanarkshire were identified and included.

Results: 177 patients underwent pre-operative radiological localisation of impalpable lesions. 81% of cases used ultrasound to place the wire with the remainder requiring stereotactic localisation. The median specimen weight was 34g (IQR 18.0–46.8g). All lesions were identified and removed successfully. 142 (80%) patients had histological confirmation of cancer or DCIS. 33 patients (18%) required a second procedure due to involved or close surgical margins.

Conclusion: Surgery for impalpable breast lesions can be performed safely and effectively in our local DGHs. All lesions in this audit were localised and excised. The number of patients requiring further surgical procedures was similar to reported results from high volume centres. In addition to inconveniencing patients, transferring patients between health boards for treatment costs more and modifications to procedure should be explored.

0241: NEGATIVE AXILLARY CLEARANCE IN SENTINEL NODE POSITIVE BREAST CANCER

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Aim: NICE recommends axillary clearance (AC) for sentinel node positive breast cancer. AC is associated with high morbidity. There was anecdotal evidence that our rate of negative AC was high. We audited out practice to investigate this.

Methods: All patients undergoing AC for positive sentinel node biopsies (SNB) were identified for the one-year period starting 1st January 2013. Data collected included tumour histology, pre-operative and post-operative staging. The Memorial Sloan Kettering (MSK) nomogram for predicting further nodes was then applied retrospectively.

Results: 179 patients had SNB of whom 21 (median age 58 [range 30–77]) underwent AC for positive SNB.

Only 5(24%) had any further affected nodes in the AC specimen. There was no direct relation with any single variable for predicting further metastases in the axillary specimen. However on the MSK nomogram, no patient who scored below 15% had further nodes ($p=0.06$ Fisher's exact test, AUC = 0.791).

Conclusion: 76% of our patients did not benefit from having AC. The development of further metastases appears to be multifactorial and the MSK nomogram might be useful in predicting this. Until the POSNOC trial is ready to report, this area could be investigated further with a national trainee research collaborative.

0252: CONSIDERATIONS OF PACEMAKERS IN BREAST CANCER MANAGEMENT

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Aim: Cardiac pacemakers (PM) in the infraclavicular region of left chest wall (1) can pose technical issues during treatments in breast cancer patients. We aim to raise awareness of the challenges in the management of these patients.

Methods: Over one year April 2013–14, six breast cancer patients out of 75 diagnosed (8%) had pacemakers. All had triple assessment.

Results: 3 patients with left breast cancer had mastectomy. Bipolar diathermy was used and breast tissue near the pacing wires was carefully excised. One had radiotherapy necessitating moving the pacemaker to the right. Another had right breast cancer and a left risk-reducing mastectomy. Two further patients had right breast cancer requiring surgery followed by radiotherapy and chemotherapy. All patients had recent Cardiac assessment.

Conclusion: Breast cancer has been reported at the PM implanted site therefore a thorough clinical examination is prudent (2,3). During surgery, electromagnetic interference (EMI) caused by electrocautery, can cause malfunction of the pacemaker and using bipolar diathermy will minimize these effects (4). Radiotherapy, PET and MRI can cause EMI (5,6). It is important to plan dosimetry to work out the radiation the PM may receive. Alternatively it may be necessary to move PM to the contralateral side. Awareness of these issues with PM is needed.

0256: POSTOPERATIVE FOLLOW-UP PRACTICE OF PHYLLODES TUMOUR IN THE UK: RESULTS FROM A NATIONAL SURVEY

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Aim: Resected phyllodes tumours (PT) of the breast carry a small but significant risk of recurrence. Nevertheless, there are no national guidelines on postoperative follow-up of these tumours potentially resulting in a wide variation in practice among breast surgeons in the UK.

Methods: A web-based questionnaire was sent to NHS breast surgeons across the UK to assess individual follow-up practices including availability of local guidelines, methods of follow-up and influence of risk factors.

Results: Only 38% from a total of 121 responses indicated the availability of local guidelines on PT follow-up. Modal follow-up duration for borderline and malignant disease was 5 years (53.7% and 79.3% of responses respectively), compared to 1 year for benign disease (43%) although 28% of respondents continue to review benign cases for 5 years. Less than 10% offered patient-directed follow-up for benign and borderline disease. Recurrent disease and margin status influenced the follow-up practice of 60% of respondents.

Conclusion: This survey highlights the wide variation in postoperative follow-up for PT within the UK. This may affect the detection of disease relapse or, conversely, result in wasted clinical resources and unnecessary patient distress. Evidence-based national guidelines are necessary to resolve this issue and inform best follow-up practice.

0265L: ATTITUDES TOWARDS BREAST CONSERVATION IN PATIENTS AGED OVER 70 WITH BREAST CANCER

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Aim: Investigate the attitudes of patients aged 70+ towards breast conserving surgery (BCS) and factors which may influence their treatment decisions.

Methods: A questionnaire was sent to patients aged 70+ at the time of breast cancer surgery in NHS Lanarkshire between 1999 and 2013. This detailed surgical recommendations, treatment expectations, and other factors that may have influenced decision-making e.g. travel for radiotherapy, potential side effects.

Results: Responses were received from 339 patients, 192 of whom had a mastectomy, the remaining undergoing BCS. Eighty-six percent of both groups were recommended their surgical management by the surgeon. In the mastectomy group 18% would have preferred BCS had it been an